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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/265,946	03/11/1999	NABIL HUSSEINI	032391-002	5100

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EXAMINER

SEMUNEGUS, LULIT

ART UNIT PAPER NUMBER

3641

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/265,946

Applicant(s)

HUSSEINI ET AL.

Examiner

Lulit Semunegus

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on October 28, 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36,38-58,114 and 115 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-58 is/are allowed.
- 6) ☒ Claim(s) 1-36,38-52,114 and 115 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

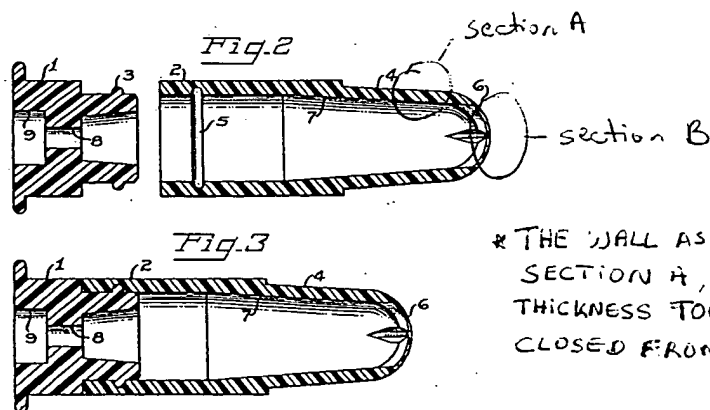
## DETAILED ACTION

### *Response to Arguments*

1. This Office action (Paper #23) addresses the amended claims (paper #21).

Applicant's arguments in regards to claim 38 that Boutwell does not disclose that the walls reduce in thickness toward an axial center of the closed front end but that the end wall (6) is relatively thin, is not persuasive since relatively thin means that the thickness is relatively thinner (see figure below). Applicant's attention is directed to fig. 2 and 3 where the casing reduces in thickness toward an axial center of the closed front end (col.2, lines 64-66).

Applicant also argues that Boutwell does not teach claim 39 since Boutwell does not disclose stress concentrated in any particular area. Boutwell teaches that the end wall (6) simply spreads apart when the cartridge is fired (col.2, lines 4-6) which infers that the area around the end wall (6) has stress concentration.



JOHN T. BOUTWELL  
INVENTOR  
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ATTORNEYS

### ***Drawings***

2. The drawing change submitted on October 28, 2002 is acceptable.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 20 and 114-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatsvog (5,259,288) in view of Ballreich et al (4,809,612).

Vatsvog discloses an ammunition article, comprising: a cartridge casing body (10, 112), which includes a first interior portion, defined by the portion of the projectile (12, 110) a second interior portion (16) having a smaller diameter than the first interior portion (fig.2-3) and separated by a shoulder (20); the cartridge casing body (10, 112) molded for sufficient strength around at least a portion of a projectile (12, 110); where the casing body follows the cannellure contours of the projectile (fig. 12, col. 8, lines 25-29); and where the portion of the wall has a substantially constant thickness (152). Vatsvog does not teach the ammunition article comprising of an injection molded plastic cartridge casing body. Ballreich et al teach an ammunition article (abstract) comprising of injection molding plastic around at least a portion of a projectile (5, 7 and 9) to form a plastic cartridge casing body (1), having a first end to which the projectile is attached and a second end (col. 3, lines 24-40 and col. 2, lines 27-29). At the time of the invention, it would have been obvious to one ordinary skilled in the art have an

injection molded plastic cartridge casing body since it is well known in the art that injection molding is a different means of forming a body during manufacturing.

5. Claims 6-19, 21-36 and 38-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatsvog (5,259,288) and Ballreich et al (4,809,612) in view of Boutwell (3,144,827).

As to claims 21, 23-25, 27-28, 30, 38-42, 44-46 and 48, Vatsvog and Ballreich et al teach all the limitations of claims 21, 23-25, 27-28, 30, 38-42, 44-46 and 48 as applied to the claims 1-5, 20 and 114-115 above, except the base being a molded plastic which is replaceable and mechanically attached, Boutwell teaches an ammunition article comprising: a molded plastic cartridge case body (2, col. 2, line 17) having a closed front-end (6) that reduce in thickness and includes a stress concentrator for tearing of the closed front end (col. 1 line 70 to col. 2, line 6); a second end with a base (1) attached where the base is a molded plastic base (col. 2, lines 18-20) which can be replaceable and is attached mechanically by a locking mechanism (3,5); a primer (9); and a propellant charge inside the cartridge casing body (col. 1, lines 68-69). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a replaceable mechanically attached molded plastic base for easy access to the propellant and interchangeable base.

As to claims 6-8 and 10-18, Vatsvog and Ballreich et al teach all the limitations of claims 6-8 and 10-18 as applied to the claims 1-5, 20 and 114-115 above, except a molded plastic base attached to the second end of the cartridge casing body and is attached to the cartridge casing body by various methods of

attachment. Boutwell teaches a base (1) which is attached to the casing body by locking mechanism and includes a propellant charge and primer (9). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a plastic base and attach this base with casing body using locking groove (3,5) as taught by Boutwell as well as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art and create a reusable and replaceable base.

As to claims 29, 31-34, 47 and 49-52, Vatsvog, Ballreich et al and Boutwell disclose all the limitations of claims 29, 31-34, 47 and 49-52 as applied to the claims 1-5, 20 and 114-115 above, except the base is attached to the cartridge casing body by various methods of attachment. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to attach a base and casing body using locking groove (3,5) as taught by Boutwell as well as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art.

As to claims 9 and 19, Vatsvog, Ballreich et al and Boutwell teach the claimed invention as described above in claims 1-5, 20 and 114-115 except for electronic ignition and where the casing body is formed of a combustible material. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use electronic ignition instead of a primer for igniting the propellant for greater accuracy and consistent ignition and use combustible molded material for better sealing around the projectile.

As to claims 22, 26, 35-36 and 43, Vatsvog, Ballreich et al and Boutwell teach the claimed invention as described above in 1-5, 20 and 114-115 except for electronic ignition and where the casing body is metal or formed of a combustible molded material. At the time of the invention, it would have been obvious to a person of ordinary skill in the art use electronic ignition instead of a primer for igniting the propellant for greater accuracy and consistent ignition and use metal as a casing to withstand the high pressures of powder detonation for moderate amount of reusability and use combustible molded material for better sealing around the projectile.

***Allowable Subject Matter***

6. Claims 53-58 are allowed.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (703) 306-5960. The examiner can normally be reached on Mon-Friday.

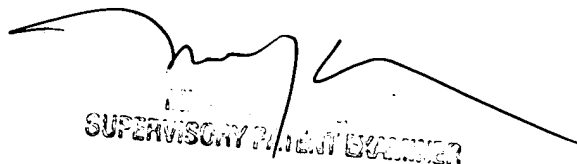
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.ls

November 22, 2002

Lulit Semunegus  
Examiner  
Art Unit 3641

  
SUPERVISORY/ART EXAMINER